

REMARKS/ARGUMENTS

Applicants respectfully request further examination and reconsideration in view of the arguments set forth fully below. Claims 1-31 were previously pending in this application. Within the Office Action, Claims 1-31 have been rejected. Accordingly, Claims 1-31 are currently pending.

Rejections Under 35 U.S.C. § 103

Within the Office Action, Claims 1-21 and 25-31 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Darrell et al., “Integrated person tracking using stereo, color, and pattern detection” (“Darrell”) in view of Davis et al., “Context Tailor: Towards a Programming Model for Context-Aware Computing,” (“Davis”). The Applicants respectfully disagree with these rejections.

Davis teaches a programming model for customized context-aware applications. Davis teaches that applications customize their execution to expected needs of a user based on patterns of repetitive context. As recognized within the Office Action, Davis does not teach identifying the current user as being one of the particular users. [Davis, section 1, para. 1] It is further stated within the Office Action that “Davis teaches comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user.” The Applicants respectfully disagree. Davis merely teaches classifying an event as recurring or rare, if the event falls within a pattern, and the length of the event. [Davis, section 3, para. 1] Nowhere does Davis teach comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user.

Darrell teaches a visual person tracking system. Darrell teaches tracking persons in a video scene using three visual processing modules, each for conducting depth estimation, detecting color segmentation and discriminating head regions from hands and other body parts. [Darrell, section 2, para. 2] Darrell teaches that stereo cameras are used to observe the attributes of a person and the observed attributes are compared with stored statistics of previous tracked users. [Darrell, section 5.2, para. 1] In one embodiment, Darrell teaches that the stored attributes include a face pattern, height, and color observations of a user. [Darrell, section 5.2, para. 2] Like Davis, Darrell also does not teach comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated

with a particular unique user. Darrell merely teaches comparing invariable attributes such as face patterns, height and color observations of previous tracked users.

As described above, Davis does not teach identifying the current user as being one of the particular users. Further, Davis does not teach comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user. As also described above, Darrell does not teach comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user. Accordingly, neither Darrell, Davis nor their combination teaches comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user.

In contrast to the teachings of Darrell, Davis and their combination, the user identification system of the present invention stores one or more historic, idiosyncratic activity patterns as user action identification profiles. The method and apparatus of the present invention monitors the current user's electronic device inputs to determine the current user's idiosyncratic activity pattern. If the detected activity pattern is deemed sufficiently close to a historic, idiosyncratic activity pattern associated with a particular user, then the current user is identified as the historic, particular user. Monitored activity patterns include one or a combination of the user's selected content, the user's manner of selecting the content, and/or the context in which the user makes certain inputs. In some instances, the module monitors the physical manner in which the user operates the electronic device. For example, two users will make keypad inputs at different speeds. In one embodiment, once the current user's identification is established, either passively by a comparator module or actively by requesting a specific user input, e.g. a password, the identification system updates the identified user's action identification profile. As described above, neither Darrell, Davis nor their combination teaches comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user.

The independent Claim 1 is directed to a method comprising detecting a user's electronic device activity pattern, comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user, and using the comparing to identify the current user as being one of the particular users. Within Claim 1 it is recited that the detected activity pattern is compared against a plurality of user action identification profiles. It is further recited in Claim 1 that each user

action identification profile is associated with a particular unique user, and the current user is identified as being one of the particular users. As described above, neither Darrell, Davis nor their combination teaches comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user. For at least these reasons, the independent Claim 1 is allowable over the teachings of Darrell, Davis and their combination.

Claims 2-9 are all dependent upon the independent Claim 1. As discussed above, the independent Claim 1 is allowable over the teachings of Darrell, Davis and their combination. Accordingly, the Claims 2-9 are all also allowable as being dependent upon an allowable base claim.

The independent Claim 10 is directed to a system comprising means for detecting a user's electronic device activity pattern, means for comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user, and means for using the comparing to identify the current user as being one of the particular users. Within Claim 10 it is recited that the means for comparing is used to compare the detected activity pattern against a plurality of user action identification profiles. As described above, neither Darrell, Davis nor their combination teaches a means for comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user. For at least these reasons, the independent Claim 10 is allowable over the teachings of Darrell, Davis and their combination.

The independent Claim 11 is directed to a method comprising comparing a user's activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user and wherein the current user's activity includes an input selection and using the comparing to identify the current user as being one of the particular users. Within Claim 11 it is recited that the user's activity pattern is compared against a plurality of user action identification profiles and that the user's activity includes an input selection. It is further recited in Claim 11 that each user action identification profile is associated with a particular unique user, and the current user is identified as being one of the particular users. As described above, neither Darrell, Davis nor their combination teaches comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user and

where the user's activity includes an input selection. For at least these reasons, the independent Claim 11 is allowable over the teachings of Darrell, Davis and their combination.

Claims 12-20 are all dependent upon the independent Claim 11. As discussed above, the independent Claim 11 is allowable over the teachings of Darrell, Davis and their combination. Accordingly, the Claims 12-20 are all also allowable as being dependent upon an allowable base claim.

The independent Claim 21 is directed to a method comprising determining a particular user's identity, detecting the particular user's activity pattern, and storing the particular user's activity pattern within a user action identification profile, wherein the user action identification profile is configured to be compared with an unknown user's activity pattern. Within Claim 21 it is recited that an unknown user's activity pattern is compared against a stored user action identification profile. It is further recited in Claim 21 that the stored user action identification profile includes a particular detected user's activity pattern. As described above, neither Darrell, Davis nor their combination teaches comparing the detected particular user's activity pattern against an unknown user's activity pattern, wherein the detected particular user's activity pattern is stored within a user action identification profile. For at least these reasons, the independent Claim 21 is allowable over the teachings of Darrell, Davis and their combination.

Claims 25 and 26 are all dependent upon the independent Claim 21. As discussed above, the independent Claim 21 is allowable over the teachings of Darrell, Davis and their combination. Accordingly, the Claims 25 and 26 are all also allowable as being dependent upon an allowable base claim.

The independent Claim 27 is directed to an identification system comprising a detection module configured for detecting a user's activity pattern, and a comparator module configured for comparing the user's activity pattern to a user action identification profile, wherein the comparator module is configured to determine a user's identity based on scoring a comparison between the user's activity pattern and the user action identification profile. Within Claim 27 it is recited that a comparator module is configured to determine a user's identity based on scoring a comparison between the user's activity pattern and a user action identification profile. As described above, neither Darrell, Davis nor their combination teaches comparing the user's activity pattern to a user action identification profile, wherein the comparator module is configured to determine a user's identity based on scoring a comparison between the user's activity pattern and the user action identification profile. For at least these reasons, the independent Claim 27 is allowable over the teachings of Darrell, Davis and their combination.

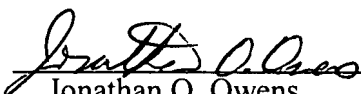
Claims 28-31 are all dependent upon the independent Claim 27. As discussed above, the independent Claim 27 is allowable over the teachings of Darrell, Davis and their combination. Accordingly, the Claims 28-31 are all also allowable as being dependent upon an allowable base claim.

Within the Office Action, Claims 22-24 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Darrell and Davis in view of Seno et al., "Network authentication system with multi-biometric," ("Seno"). Claims 22-24 are all dependent upon the independent Claim 21. As discussed above, the independent Claim 21 is allowable over the teachings of Darrell, Davis and their combination. Accordingly, the dependent Claims 22-24 are all also allowable as being dependent upon an allowable base claim.

For the reasons given above, Applicants respectfully submit that all of the pending claims are now in condition for allowance, and allowance at an early date would be greatly appreciated. Should the Examiner have any questions or comments, they are encouraged to call the undersigned at (408) 530-9700 to discuss the same so that any outstanding issues can be expeditiously resolved.

Respectfully submitted,
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